

FENWICK & WEST LLP

Silicon Valley Center • 801 California Street • Mountain View, CA 94041 Tel 650.988.8500 • Fax 650.938.5200 • www.fenwick.com

DATE:

August 6, 2003

ACCOUNT #:

22227-05479

FROM:

Amir H. Raubvogel, Esq.

FROM-SENWICK&WEST MOUNTAIN VIEW

(650) 335-7276 Direct Dial

(650) 988-8500 General (650) 938-5200 Fax

RECEIVED

AUG 0 7 2003

Technology Center 2100

CONFIDENTIAL

TO:

Leslie Wong

COMPANY:

United States Patent and Trademark Office

Group Art Unit 2771

FAX NO.:

(703) 746-7238

TELEPHONE NO.:

(703) 305-3018

NUMBER OF PAGES:

17 (Including cover sheet)

MESSAGE:

Re:

Applicant:

Ted E. Dunning and Bradley D. Kindig

Serial No.: Filing Date: 09/848,982

May 3, 2001

Title:

TEXT EQUIVALENCING ENGINE

Atty. Dkt. No.:

22227-05479

Enclosed please find Amendment B After Final Office Action and Statement of Substance of Interview for filing with the U.S. Patent and Trademark Office in connection with the above-referenced application.

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AUG-06-2003 03:57PM

Pate O001/PTO U.S. Department of Commerce Rev. 10/95 Patent and Trademark Office TRANSMITTAL FORM (to be used for all correspondence during pendency of filed application)		PTO/SB/21 (modified) use through xx/xx/xx, OMB 0651-0031 J.S. DEPARTMENT OF COMMERCE 09/848,982 May 3, 2001 Ted E. Dunning 2177 Leslie Wong	
Total Number of Pages in This Submission 16	Attorney Docket Number	22227-05479 REC	EIVED
ENCLOSURES Fee Transmittal Form (in duplicate) Check Enclosed Return Receipt Postcard Response to Notice to File Missing Parts Assignment & Recordation Cover Sheet Declaration Power of Attorney Application Data Sheet Information Disclosure Statement & PTO/SB/08A Coples of IDS Cited References Request for Corrected Filing Receipt Request for Correction of Recorded Assignment Amendment/Response: 13 Page(s) After Final Status Request Revocation and Substitute Power of Attorney	Appeal Commun Interferences Appeal Commun (Appeal Notice, I	mittal raftsperson s):) of Figure(s) {] ication to Board of Appeals and	7 2003
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6509385200

PTO/SB/17 (10-02) (Modified) Approved for use through 10/31/2002. OMB 0551-0032

F-835

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1695, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Complete if Known **FEE TRANSMITTAL** 09/848,982 Application Number May 3, 2001 Filing Date for FY 2003 Ted E. Dunning First Named Inventor Leslie Wong Examiner Name Patent fees are subject to annual revision. Applicant claims small entity status. See 37 CFR 1.27 2177 Art Unit 22227-05479 TOTAL AMOUNT OF PAYMENT (\$) 0.00 Attorney Docket No.

METHOD OF PAYMENT (check all that apply)	FEE CALCULATION (continued)						
☐ Check ☐ Credit Card ☐ Money Order ☐ Other ☒ None ☐ Deposit Account:	3. ADDITIONAL FEES			F Phas dellas	P		
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FEE CALCULATION			2251	55	Extension for reply within first month		
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Large Entity Small Entity			2253	465	Extension for reply within third month		
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1002 330 2002 165 Design filing fee			2402	160	Filing a brief in support of an appeal		
1003 520 2003 260 Plant filing fee		-	2403	140	Request for oral hearing Petition to institute a public use proceeding		
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1005 160 2005 80 Provisional filing fee		· · ·	2452	55	Petition to revive - unavoidable		
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1202 18 2202 9 Claims in excess of 20			2809	375	Filling a submission after final rejection (37 CFR 1.129(a))		
1201 84 2201 42 Independent claims in excess of 3			2810	375	For each additional invention to be examined (37 CFR 1.129(b))		
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SUBMITTED BY				Complete (if applicable)	Ţ_
Name (Print/Type)	Amir H. Raubvogel	Registration No. (Attornsy/Agent) 37,070		Telephone (650) 335-7276	<u> </u>
Signatur é	824	~	Date	August 6, 2003	

22227/05479/DOCS/1368691.1

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6509385200



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FROM:

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(650) 858-7276 Direct Dial (650) 494-0600 General (650) 494-1417 Fax

CONFIDENTIAL

TO:

Leslie Wong

COMPANY:

U.S. Patent and Trademark Office

FAX NO.:

(703) 746-7470

NUMBER OF PAGES:

11 (Including cover sheet)

MESSAGE:

RE: Serial No.: 09/848,982

Per your request, attached is a copy of the Office Action dated May 13, 2003.

AHR/clm

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
09/848,982	05/03/2001	Ted E. Dunning `	22227-05479	8782
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FENWICK & WEST LLP SILICON VALLEY CENTER 801 CALIFORNIA STREET MOUNTAIN VIEW, CA 94041			EXAMINER	
		MAY 1 9 2003	WONG, I	ESLIE
MOONTAIN	EW, CA 94041	FENWICK & WEST LLP	ART UNIT	PAPER NUMBER
			2177	14
			DATE MAILED: 05/13/2003	- 4

Please find below and/or attached an Office communication concerning this application or proceeding.

G-06-2003 11:06AM	FROM-FENWICK&WEST MOUNTAIN VIEW	6509385200	T-719 P.003/011 F-824
		Application No.	Applicant(s)
Offic	ce Action Summary	09/848,982	DUNNING ET AL.
•	o nozon canniary	Examiner	Art Unit
71- 164	Who bite 201	Leslie Wong	2177
Period for Reply	ILING DATE of this communication app	ears on the cover sheet	with the correspondence address
I HE MAILING Extensions of time after SIX (6) MON If the period for re If NO period for re Fallure to reply wil Any reply received	D STATUTORY PERIOD FOR REPL' DATE OF THIS COMMUNICATION. It may be available under the provisions of 37 CFR 1.1: THS from the mailing date of this communication. ply specified above is less than thirty (30) days, a reply ply is specified above, the maximum statutory period within the set or extended period for reply will, by statute, it by the Office later than three months after the mailing in adjustment. See 37 CFR 1.704(b).	35(a). In no event, however, may within the statutory minimum of t vill apply and will expire SIX (6) M	a reply be timely filed thirty (30) days will be considered timely. ONTHS from the mailing date of this communication.
1) 🖾 Respon	sive to communication(s) filed on 30 J	· anuary 2003	
		is action is non-final.	
3) Since the closed in Disposition of Cla	nis application is in condition for allowa n accordance with the practice under i	nce except for formal m	natters, prosecution as to the ments is C.D. 11, 453 O.G. 213.
•	1-35 is/are pending in the application		!
	above claim(s) is/are withdraw		
	is/are allowed.	m nom consideratori.	1
	1-35 is/are rejected.		
	is/are objected to.		i
	are subject to restriction and/or	election requirement.	
9) The speci	fication is objected to by the Examiner		
	ng(s) filed on is/are; a)□ accep		the Examiner
	t may not request that any objection to the		
11)☐ The propo	sed drawing correction filed on	is: a) approved b)	disapproved by the Examiner.
If approv	ed, corrected drawings are required in rep	ly to this Office action.	
12) The oath o	or declaration is objected to by the Exa	ıminer.	
riority under 35 L	J.S.C. §§ 119 and 120		
13)☐ Acknowle	dgment is made of a claim for foreign	priority under 35 U.S.C.	. § 119(a)-(d) or (f),
	☐ Some * c) ☐ None of:		
1.☐ Cei	rtified copies of the priority documents	have been received.	i
2.☐ Cer	tified copies of the priority documents	have been received in .	Application No
3.☐ Cop	pies of the certified copies of the priorit application from the International Bure ached detailed Office action for a list o	y documents have been	n received in this National Stage
14) Acknowledge	gment is made of a claim for domestic	priority under 35 U.S.C	. § 119(e) (to a provisional application
a) 🔲 The tr	anslation of the foreign language prov gment is made of a claim for domestic	isional application has I	been received
Notice of Draftsper Information Disclos	ces Cited (PTO-892) rson's Patent Drawing Review (PTO-948) sure Statement(s) (PTO-1449) Paper No(s) <u>9</u> .	4) Interview 5) Notice of 6) Other.	Summary (PTO-413) Paper No(s) Informal Patent Application (PTO-152)
etent and Trademark Office 3-326 (Rev. 04-01)	Office Action	on Summary	Part of Paper No. 11

Part of Paper No. 11

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DETAILED ACTION

Response to Amendment

1. Receipt of Applicant's Amendment, filed 30 January 2003, is acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 3. Claims 1-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Damashek (U.S. Patent 5,418,951).

Regarding claims 1, 12, 23, and 34, Damashek teaches a computerimplemented method of text equivalencing from a string of characters 3 comprising:

- a). modifying the string of characters using a predetermined set of heuristics (col. 4, line 64 col. 5, line 5; col. 8, line 64 col. 9, line 2);
- b). comparing the modified string with a known string of characters in order to locate a match (col. 4, lines 10-60);
- c). responsive to not finding a match, forming a plurality of sub-strings of characters from the string of characters (col. 3, lines 21-24; col. 4, lines 24-27); and

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d). using an information retrieval technique on the sub-strings of characters to determine a known string of characters equivalent to the string of characters (col. 3, lines 22-31 and col. 4, lines 10-60).

Regarding claims 2, 13, 24, and 35, **Damashek** further teaches a step wherein the information retrieval technique further comprises:

- a). weighting the sub-strings (col. 5, lines 31);
- b). scoring the known string of characters (col. 8, lines 51-56); and
- c). retrieving information associated with the known string of characters with the highest score (col. 9, lines 64-66).

Regarding claims 3, 14, and 25, **Damashek** further teaches a step comprising, responsive to the highest score being greater than a first threshold, automatically accepting the known string of characters as an exact match (col. 8, lines 51-63).

Regarding claims 4, 15, and 26, **Damashek** further teaches a step comprising, responsive to the highest score being less than a second threshold and greater than a first threshold, presenting the known string of characters to a user for manual confirmation (col. 9, lines 12-14; col. 10. 45-49).

Regarding claims 5, 16, and 27, Damashek further teaches a step comprising, responsive to the highest score being less than a second threshold and greater than a

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third threshold, presenting the known string of characters to a user to select the equivalent string of characters (col. 9, lines 12-14; col. 10. 45-49).

Regarding claims 6, 17, and 28, Damashek further teaches a step wherein the sub-strings of characters are 3-grams (col. 3, lines 21-24; col. 4, lines 24-27).

Regarding claims 7, 18, and 29, Damashek further teaches a step wherein the string of characters is selected from the group consisting of a song title, a song artist, an album name, a book title, an author's name, a book publisher, a genetic sequence, and a computer program (col. 9, lines 35-37).

Regarding claims 8, 19, and 30, Damashek further teaches a step wherein the predetermined set of heuristics comprises removing whitespace from the string of characters (col. 4, line 64 - col. 5, line 5).

Regarding claims 9, 20, and 31, Damashek further teaches a step wherein the predetermined set of heuristics comprises removing a portion of the string of characters (col. 8, line 64 – col. 9, line 10).

Regarding claims 10, 21, and 32, Damashek further teaches a step wherein the predetermined set of heuristics comprises replacing a symbol in the string of characters with an alternate representation for the symbol (col. 4, line 64 - col. 5, line 5).

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Regarding claims 11, 22, and 33, Damashek further teaches a step wherein storing an indication (i.e., similarity score) that the string of characters is the equivalent of the known string of characters (col. 8, lines 51-56).

Response to Argument

4. Applicant's arguments filed 30 January 2003 have been fully considered but they are not persuasive.

Applicants argue that Damashek does not teach or suggest a step of finding a match for a character string, or attempting to find a string that is equivalent to a query string. In response to the preceding arguments, the Examiner respectfully submits that Damashek teaches finding a match for a character string by comparing it with known text (i.e., reference documents) (col. 5, lines 10-11). The reference documents are parsed into sub-strings (n-grams) for each reference document. Weights are assigned to each unique sub-string (i.e., n-gram). The weight is determined by the relative frequency of occurrence of that n-gram in the reference document (col. 5, 24-30). The string that the system attempts to find a match for is also parsed into a list of unique n-grams and weight is also assigned to each n-gram. The string is then compared to each of the known strings by scoring the string against the known strings (i.e., reference document). The score for the string with respect to the known strings indicates the degree of similarity between the two string (col. 5, lines 54-60). Applicants also remark that Damashek's parsing text into n-grams for the purpose of categorizing documents

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according to language or topic and that Damashek does not form sub-string in response to not finding a match as claimed. It is submitted that Damashek uses the scores of the strings to determine the similarity between the two strings (i.e., a match is found) in order to place the unidentified string into its proper category. Therefore, the Examiner submits that Damashek teaches a step of finding a match for a character string as claimed.

Applicants further allege that there is no mention in Damashek any technique in forming sub-strings as claimed. Additionally, Damashek does not disclose forming substring in response to not finding a match. In response to the preceding arguments, the Examiner respectfully submits Damashek teaches forming sub-strings for both know text and string to be matched (i.e., unidentified string). Furthermore, Damashek discloses user assigns threshold scores in order to determine the similarity of the two strings (col. 5, lines 24-39 and lines 54-60 and et seq.). Applicant's invention ultimately has to carry out string decomposition in order to find a match. Damashek, on the other hand, forms sub-strings from the known text and the string to be matched regardless. Therefore, it is submitted that Damashek addresses the limitation as claimed.

Applicants also point out that Damashek's discussion of the limitation: "using an information retrieval technique on the sub-strings of characters to determine a know string of characters equivalent to the string of characters" is entirely unrelated to the

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above recited limitation. In response to the preceding arguments, the Examiner respectfully submits that it is totally relevant to the present invention as Applicant's Specification pages 7, paragraph 0021 to page 15, paragraph 0042 describes in detail such information retrieval technique.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie Wong whose telephone number is (703) 305-3018. The examiner can normally be reached on Monday to Friday 9:30am - 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (703) 305-9790. The fax phone numbers AUG-06-2003 11:08AM

Application/Control Number: 09/848,982

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Page 8

for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

> Leslie Wong Patent Examiner Art Unit 2177

May 9, 2003

6509385200

P.011/011 F-824

PTO/SB/08A (10-01)

;)

PERSONAL (19-01)
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4817			
Substitute for form 1449A/PTO	Complete if Known		
_	Application No.	09/848,982	
INFORMATION DISCLOSURE	Filing Date	May 3, 2001	
STATEMENT BY APPLICANT	First Named Inventor	Ted E. Dunning	
	Art Unit	2177	
	Examiner Name	Leslie Wong	
Sheet 1 of 1	Attorney Docket Number		

		OTHER REFERENCES - NON-PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), the of the limit box in the limit b	₹*
LW	Α	M. F. PORTER, "An Algorithm For Suffix Stripping," Computer Laboratory, Com Exchange Street, Cambridge, pgs. 313-316.	 -
Lu	В	W. B. CROFT and D. J. HARPER, "Using Probabilistic Models of Document Retrieval Without Relevance Information," Department of Computer and Information Science, University of Maxxachusetts, Amherst, and Computer Laboratory, University of Cambridge, pgs. 339 – 344.	
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Examiner Signature	Cere	Date Considered	5/8/03:

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

'Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04, ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document, Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.